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Risk-Related Disclosure:
A Review of the Literature and an Agenda for Future Research

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Risk-Related Disclosure:

A Review of the Literature and an Agenda for Future Research

This paper critically examines the literature on risk reporting, largely dominated by the accounting standards for financial instruments (FI) issued by the FASB and the IASB. The analysis is motivated by the increased amount of FI-related research published in recent years, as well as by the conflicting findings that have emerged from these investigations. The increasing usage of risk-related FI, together with the financial collapses that this use has precipitated, provides a need for a review of research in this area. In discussing the key conclusions that emerge from the review, the paper identifies an agenda for future research and points to key omissions and deficiencies in the extant literature on risk reporting.

Keywords: Accounting Standards; Financial Instruments; Financial Reporting; Risk Disclosure; Value Relevance.

1. Introduction

During the 1980s, financial companies started to develop innovative financial products, called FI¹. Indeed, Miller (1991) argued that the emergence of FI resulted in a revolutionary change in capital markets² as a growing number of firms started to use these products. In particular, the use of FI derivatives increased by 1,700% between 1990 and 2014, from \$57.5 trillion to \$696 trillion (Abdel-Khalik and Chen, 2015). According to the literature, the primary motives for this increased usage of FI included reducing risk exposure, managing liquidity, speculation and profit-making (Jacque, 2010). Alongside this growth in the usage of these instruments, the number and types of FI available have risen enormously in recent years. As a result of these developments, several studies have suggested that a great deal of stress has been placed upon the representational claims made for accounting because of the risks associated with FI usage and the changes which such instruments can facilitate in the risk profile of a firm (Young, 1996; Power, 2010). In particular, some commentators have argued that the narrow “institutional thinking” of standard-setters explains the accounting approach adopted for FI, and that this approach ignores “the macroeconomic consequences of sanctioning the proliferation of complex, unregulated, and systemically dangerous financial products” (Arnold, 2009, p. 806).

As a result of concerns regarding the risks arising from FI, major accounting standard-setters, including the FASB and the IASB, have emphasized the importance of providing useful risk-related accounting information about economic entities for investor and creditor decision-making (Arnold, 2009). In particular, these organizations have introduced a number of FI and risk-reporting related standards and altered the nature of the accounting disclosures that are mandated (Hernández, 2003). However, the increasing sophistication of new FI has presented a challenge for accounting standard-setters. As a result, standard-setters have changed their reporting

requirements for FI on several occasions. However, it has been argued that these changes in the accounting regulation of FI and their related risks have contributed to an expansion in companies' usage of FI either for hedging or speculation purposes (Abdel-Khalik and Chen, 2015). Hence, recent years have seen a surge in demand for improved risk reporting by companies and this demand has intensified markedly following the 2007/08 global financial crisis³ (Institute of Chartered Accountants in England and Wales (ICAEW), 2011). This increased demand is based on the assumption that improved risk reporting will lead to a better understanding of business risks by investors and other users of corporate reporting and will, in turn, result in improved stewardship and a more efficient allocation of resources (ICAEW, 2011). An essential component of this demand for risk reporting stems from the new and increased risks that firms face, particularly in relation to FI (ICAEW 2003, 2009, 2011; Power, 2004). These risks have been highlighted by the continuing corporate scandals, where the (ab)use of FI has contributed to firms' financial distress, as well as the accusation that accounting exacerbated the 2007/08 financial crisis. Indeed, Douglas (1986) argued that the failure to interrogate accounting more deeply, as well as the insistence of accounting standard-setters that FI should be considered within the existing conceptual framework, have contributed to difficulties in recognizing, measuring and reporting FI and their associated risks.

The increased use of FI has resulted in several cases of financial loss and bankruptcy. In order to provide the users of financial statements with useful information for investment decision-making purposes (and thereby enable them to avoid investing in loss-making or bankrupt entities), accounting standard-setters (e.g. the FASB and the IASB) have introduced a number of standards which have sought to recognize FI in firms' financial statements. The main aim of this paper is to critically examine the extant literature on risk reporting, largely dominated by the accounting

standards for FI issued by the FASB and the IASB. The current analysis is motivated by the financial value of these instruments noted earlier, the increased volume of FI-related research that has been published in recent years, as well as by the conflicting findings that have emerged from these investigations. In addition, the increasing usage of risk-related FI, together with the financial collapses that this use has precipitated, provides a need for a review of research in this area. Further, the continuing attempts by the IASB and the FASB at introducing FI-related accounting standards provide a rationale for reviewing the literature on FI in order to evaluate the efficacy of the various standards that have been adopted.

The remainder of this paper is organized as follows. Section 2 provides an overview of the accounting standards relating to FI disclosure which have been issued by the main regulatory bodies. Sections 3 – 5 explain the scope of the current analysis and present a comprehensive review of the extant empirical literature on FI disclosure. Finally, Section 6 discusses the key conclusions that emerge from the review of the extant literature and identifies a number of areas where future research is needed.

2. Financial Instruments Accounting Standards Issued by the FASB and the IASB

Accounting for FI has been one of the most controversial standard-setting issues in the last two decades (Tahat, Dunne, Fifield and Power, 2016a). Chau, Chau and Chan (2000) argued that three major issues need to be addressed when accounting for FI: recognition, measurement and disclosure. Ahmed, Kilic and Lobo (2006) suggested that these issues are not substitutes for each other and that all of them should be considered when investigating this area. Major accounting regulators have followed this delineation when issuing standards that account for FI. Initially, the IASB and the FASB concentrated on disclosure but, with the application of IFRS 9, Financial

Instruments, in January 2018, the emphasis on recognition and measurement has increased in their pronouncements.

In 1986, the FASB commenced discussions about FI. Initially, they focused on FI disclosures, and introduced the Statement of Financial Accounting Standard (SFAS) No. 105, Disclosure of Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk, in 1990; this standard emphasized the risk associated with off-balance sheet FI, especially credit risk (FASB, 1990). This standard was followed by SFAS 107, Disclosures about Fair Value of Financial Instruments, in 1991, which focused on the disclosure of fair values for FI (FASB, 1991). In 1994, the FASB issued SFAS 119, Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments, which addressed the question of disclosure about FI derivatives and the fair value of FI instruments (FASB, 1994). In terms of recognition, measurement, and hedge accounting, the FASB issued SFAS 115, Accounting for Certain Investments in Debt and Equity Securities, in 1993, which focused on accounting for some investments in debt and equity securities with derivative characteristics (FASB, 1993). In 1998, the FASB issued SFAS 133, Accounting for Derivative Instruments and Hedging Activities, which was aimed at improving financial reporting disclosures about the use of FI derivatives; it classified derivatives into two main categories: trading derivatives and hedging derivatives (FASB, 1998). SFAS 133 was controversial as it required different accounting treatments for both categories⁴. The statement was issued as a result of past significant losses involving derivative products and the standard tried to limit corporate hedging to risk management activities rather than the smoothing of earnings (Ighian, 2012). Abdel-Khalik and Chen (2015) argued that the introduction of SFAS 133 had unintended consequences; it incentivized firms to use more FI derivatives for hedging purposes without concern for any associated rise in the volatility of reported earnings. Since the adoption of

SFAS 133, the FASB has issued further pronouncements regarding the measurement and disclosure of FI (See Figure 1).

The IASB adopted a similar approach to that employed by the FASB by introducing several accounting standards concerning FI. Figure 2 highlights the FI-related accounting standards that have been issued by the IASB, including IAS 30 (Disclosures in the Financial Statements of Banks and Similar Financial Institutions), IAS 32 (Financial Instruments: Presentation), IAS 39 (Financial Instruments: Recognition and Measurement), IFRS 7 (Financial Instruments: Disclosure) and IFRS 9. The IASB issued IAS 30 in 1990; it concentrated on FI disclosure and only applied to financial institutions (IASB, 1991). In 1995, the IASB issued IAS 32 which dealt with all types of FI (recognized and unrecognized). The main objective of IAS 32 was to ensure that companies provided information that enhanced users' understanding about the impact of FI on an entity's financial position, performance and cash flows (IASB, 1995). In 1998, the IASB introduced IAS 39 (IASB, 1998) which gave rise to a great deal of debate and controversy due to the complexity of its requirements (Helliard and Dunne, 2004; Helliard, Dunne and Moir, 2004). The standard determined that: (i) all FI should be recognized on the balance sheet; (ii) all FI should be measured at fair value; and (iii) hedge accounting activities should be allowed. The IASB issued IFRS 7 in 2006; this standard must be applied by all listed firms (financial and non-financial) using the IASB's standards and it covers all categories of FI as well as the risks arising from the use of FI (IASB, 2006). IFRS 7 concentrates on FI disclosure and is based on the notion that companies must provide disclosures in their financial statements that help users to assess the significance of FI for companies' financial positions and performances (IASB, 2006). In 2009, the IASB issued IFRS 9: Financial Instruments; the standard focuses on classification and measurement and became effective in January 2018 (IASB, 2014).

Insert Figure 1 and Figure 2 here

A comparison of the standards issued by the FASB and the IASB relating to FI reveals a number of similarities and differences, which are summarized in Table 1. A visual inspection of this table indicates that the pronouncements of the two standard-setters share a number of common characteristics. First, both US and IFRS GAAP share a similar conceptual basis which is underpinned by the decision-usefulness framework. This approach states that “the primary objective of financial reporting is to provide information useful to current and prospective investors and creditors in making investment, credit and similar resource allocation decisions” (IASB, 2006, para. 6). Second, both of them require that FI be classified into specific categories in order to: (i) determine the disclosure requirements and measurement of FI; (ii) clarify when an instrument should be recognized or derecognized in the financial statements; (iii) include all FI in the balance sheet; and (iv) report detailed information in the notes to the financial statements about the FI which are reported in the balance sheet. Third, they allow the use of hedge accounting and the fair value option for FI.

However, there are some important differences between US and IFRS GAAP in dealing with FI; these are also explained in Table 1. For example, the table indicates that US GAAP adopt a rules-based approach which means that companies in the US operate under a strict system of detailed rules when preparing financial statements⁵. On the other hand, IFRS GAAP is principles-based and focuses on a set of key objectives rather than detailed rules for financial reporting purposes⁶. Table 1 also indicates that they differ in a number of ways regarding the treatment of FI, namely: (i) the classification of FI as debt or equity; while the FASB requires that instruments which have

the characteristics of both equity and liabilities, such as convertible bonds, must be classified as liabilities, the IASB considers them as contractual obligations; and (ii) the recognition and measurement of impairment losses; the FASB requires that impairment losses incurred as a result of a decline in fair value must be reported in the income statement, while the IASB allows a firm to choose whether or not to recognize and measure these losses based on evidence about the likelihood of credit default. Further specific areas of difference are also outlined in Table 1 such as the measurement of loans and receivables as well as fair value. Differences in the boards' accounting standards in general, and in FI-related standards in particular, have led to the FASB and the IASB working jointly in order to harmonize their requirements; they began this Convergence process in 2000. Since 2006, the boards have been engaged in a joint project called *Accounting for Financial Instruments* (IASB, 2008). The objective of this joint project is to significantly improve the decision-usefulness of FI disclosure for users of financial statements (Ighian, 2012). This joint work resulted in the introduction of a discussion paper by both standard-setters in 2008 called *Reducing the Complexity in Reporting Financial Instruments*. This discussion paper concentrates on the measurement of FI and hedge accounting as well as on identifying possible approaches⁷ to reducing the complexity inherent in accounting for FI. Despite some fierce opposition by preparers (Tahat, 2013), the full fair value model was identified as the long-term goal of both the IASB and the FASB for the improvement of their FI standards up to the time of the global financial crisis (IASB 2008).

Insert Table 1 here

3. Research Approach

Beattie (2005) argued that the primary intended audience of literature review studies is academics at the outset of their research career. In particular, she argued that literature reviews offer such

individuals a point of entry to the research methods and key studies in a particular area. Other audiences for such reviews are educators and students seeking a thorough knowledge of a given sub-field. By mapping out the domain of a field, a review provides a useful aid, acting as an “advance organizer” to encourage integrated learning (Mayer, 1987, p. 120). In addition, reviews allow researchers and policy-makers in an area to take stock; to evaluate progress and identify gaps as well as fruitful lines for future inquiry or policy development. This review aims to aid all of these groups. In addition, this paper aims to alert editors and readers to the coverage that risk reporting receives within their journals. As such, it may stimulate debate on aspects of this area that are absent from journals and encourage research into FI-related issues that are not examined in the academic literature.

The primary review is focused on papers published over the last twenty years on the topic of risk disclosure. In particular, Google Scholar was used to search for English language publications with at least one of the following phrases in the title: IAS 32; IAS 39; IFRS 7; SFAS 133; Risk Disclosure. These phrases were selected in order to focus on publications relating to the topic of this review. In addition, a decision was taken to concentrate on the title of the article since a large number of publications might otherwise be identified with little or no relevance to the main focus of the research. Furthermore, the search was conducted for articles that were published over the period 1998 – 2018 inclusive. The year 1998 was selected as the first year of the search as this coincides with the development of IAS 39 in December 1998 and the issuance of SFAS 133 in June 1998. A total of 918 “results” were identified by this initial screening of the literature; of these, 597 related to “Risk Disclosure” while the remaining 321 mentioned at least one of the four accounting standards in their title. The total number of results was reduced to 664 upon the exclusion of citations and patents. This list of results was scrutinized and publications involving

risk disclosure in non-corporate settings (for example, those relating to medical risk, climate change, cyber-attacks and real estate) were eliminated; this reduced the sample to 556 publications. Of these, just under 40% were published in the last five years (2014-2018) examined, while only nine were published in the years 1998-2000. In addition, a majority of these “results” were issued either in journals that were ranked 2* or below⁸ by the ABS (Chartered Association of Business Schools (CABS), 2015) or on websites. A detailed inspection revealed that only 19 articles were published in the 27 accounting journals that were ranked as 3* or 4* by the ABS in 2015. Of these, four were in the *Accounting Review*, three were in each of *Accounting and Business Research* and the *International Journal of Accounting*, two were in each of the *British Accounting Review*, and the *Review of Accounting Studies*, and one was in each of *Accounting Forum*, the *European Accounting Review*, *Journal of Accounting & Public Policy*, *Journal of Business Finance & Accounting* and *Management Accounting Research*.

These 19 articles were selected for further scrutiny. For every one of these 19 articles identified, the geographical location, theoretical and methodological frameworks, method, and findings were reviewed. Such a focus is of value because it acts as a heuristic device, enhancing our understanding of how the literature has evolved and aiding our interpretation of the contributions made by different studies (Rudner, 1966). In addition, this focus facilitates an evaluation of the impact of the research effort on the development of accounting policy in the area.

Insert Table 2 here

4. The ‘Top-ranking’ Risk Disclosure Literature

Table 2 presents an overview of the 19 studies contained in CABS 3* and 4* journals over the past twenty years. A number of noteworthy observations emerge from this summary. First, studies published in these journals tend to be based on datasets emerging from developed markets, with

seven studies based on US data and five employing UK data. Only one study cast a wide net, utilizing observations from 21 countries. As the journals scrutinized were all published in developed countries, this observation is probably not surprising. However, the dominance of Anglo-American studies on this topic in the top-ranking journals is worthy of further consideration.

Second, the vast majority of these papers are largely atheoretical in their approaches, employing positivist methodologies based around hypotheses tested using regression analysis. Thus, quantitative approaches dominate with little attention focused on ascertaining perspectives on the approaches promulgated by standard-setters. Notably, Abraham and Shrivies (2014) provide an exception to this generalization by employing an institutional lens to explore longitudinal disclosures and highlighting the important role played by stakeholders in improving risk reporting. In particular, Abraham and Schrivies (2014) propose a model based around three questions which managers and other stakeholders, such as users, regulators and auditors, can use for both preparing and assessing the quality of risk reporting in annual reports⁹. Some six of the papers reviewed were normative, often developing a model about the impact of FIs on decision-making (e.g. Nan, 2011) or some aspect of firm performance (Heinle and Smith (2017) or proposing an approach to quantify the risk associated with FIs (Cabedo and Tirado, 2014).

Third, the majority of these studies have focused on risk disclosure within banks. While, undoubtedly, the importance of risk disclosures around FIs are heightened within these institutions (Ahmed et al., 2011; Kilic et al., 2013; Lim et al, 2013; O'Hanlon, 2013), the omission of other sections of the reporting community within the top-ranking literature is arguably problematic. The omission is all the more surprising since many of the scandals relating to the misuse of FIs emanate

from non-financial firms (e.g. Ashanti Goldfields, Gibson Greetings, Metallgesellschaft, Procter & Gamble¹⁰) where (i) unlike in banks, those in control often did not have sufficient expertise to understand the products that they were using (Capelle-Blancard, 2010); and (ii) users of financial statements by non-financial firms are less knowledgeable about FIs since they typically lack the specialist training and expertise in the capital markets arena as compared to the readers of financial statements issued by financial institutions (Koonce, Lipe and McAnally, 2005; Hamilton and Winchel, 2018). Further, the omission suggests a lag in the accounting literature since standard-setters have widened the scope of their pronouncements beyond financial institutions since 1995; this reporting on FI-related risks by non-financial firms has not appeared in the top-ranking journals to any great extent but instead tends to get published in 1* and 2* journals (Lajili and Zehgal, 2005; El-Masry, 2006; Lopes and Rodrigues, 2006, 2008; Oliveira, Rodrigues and Craig, 2011).

While these studies undoubtedly constitute an important contribution to the topic of risk disclosure, their restricted focus and elitism limits the debate on both the implications of this form of reporting and the potential of this literature to add to the accounting academe.

5. The Remaining Risk Disclosure Literature

The vast majority of the risk disclosure literature has been published in non-CABS 3* and 4* journals. In attempting to organize this broad literature, this section will examine studies that focus on risk reporting broadly, leading to a discussion of research that specifically deals with FI, before concluding with an emerging theme exploring the value relevance of these disclosures.

5.1 Risk Disclosure

In recent years, risk reporting has grown in importance within the financial reporting arena (Kajuter, 2001; Linsley and Shrives, 2001; Jorion, 2002; Dobler, 2008; Bhat, Cai, Frankel and Martin, 2011; Nelson and Rupar, 2011; Bhat, Ryan and Vyas, 2012; Abraham and Shrives, 2014). It is certainly the case that changing economic and regulatory environments, more complex capital structures, increasing reliance on FI, the growth of international funding transactions and prominent corporate crises have all focused increasing attention on risk reporting (Beretta and Bozzolan, 2004; Linsley and Shrives, 2006). Before recent changes in regulations (e.g. IFRS 7, SFAS 133), the publication of risk-related information remained at the discretion of individual company management (Dobler, 2008). Thus, Linsley and Shrives (2006) argued that, despite the fact that the topic of risk reporting had recently received considerable attention in the financial area, this had yet to be reflected in the empirical research examining firms' risk disclosures. Nevertheless, a number of empirical studies have examined risk reporting throughout the world¹¹. The findings of these studies indicate that: (i) firms were not providing a complete picture of the risks they faced within their financial statements and a significant proportion of risk disclosures consisted of generalized statements of risk information policy; (ii) there was minimal disclosure of quantitative risk information and narrative information was more prevalent; and (iii) investors believed that a complete risk profile of a company was very important in assessing the prospects and the value of a firm.

In the US, regulators addressed risk disclosures by a number of statements in order to improve further on the disclosure of risk-related information associated with FI: (i) Financial Reporting Release (FRR) No. 48 (market risk disclosure); (ii) SFAS 105 (off-balance sheet risk); (iii) SFAS 133 (credit risk); and (iv) SFAS 157, Fair Value Measurements, (liquidity risk). Accordingly, a sizeable amount of North American research has investigated mandatory risk disclosures based

upon these pronouncements (Elmy, LeGuyader and Linsmeier, 1998; Rajgopal, 1999; Roulstone, 1999; Hodder. Koonce and McAnally, 2001; Jorion, 2002; Linsmeier, Thornton, Venkatachalam and Welker, 2002; Lim and Tan, 2007; Pérignon and Smith, 2010; Bhat, Frankel and Martin, 2011a, b; Riedl and Serafeim, 2011). The findings in this area have indicated that these new regulations have had a positive impact on risk reporting; regulations have limited discretion by mandating risk disclosures by type and format. In addition, they have pointed out that, before the new regulations, market measures of interest rate risk, foreign exchange rate exposures and total risk were largely absent despite an increased use of FI derivatives. With respect to IFRS GAAP, prior to 2007, risk disclosure associated with FI was embedded in IAS 32. This standard focused only on credit risk and interest rate risk (Young and Guenther, 2003). Bradbury (2003) argued that one of the underlying weaknesses of the IASB framework was that it largely ignored risk disclosure. However, this situation changed after the introduction of IFRS 7; risk disclosure associated with FI now occupies a major part of the disclosure requirements contained within IFRS 7. Indeed, Coetsee (2010) argued that IFRS 7 has placed a considerable focus on risk disclosure and a discussion of how management controls such risks. Investigating the impact of IFRS 7 on European banks' risk disclosure, Bischof (2009) documented a significant increase in the amount of risk-related information associated with FI usage. This result is in line with US literature which has explored the usefulness of quantitative disclosures on market risk required by FRR No. 48 (Roulstone, 1999; Blankley, Lamb and Schroeder, 2000; Solomon, Solomon, Norton and Joseph, 2000). Serious criticism has also been levelled at the standards for being overly complex, rigid and burdensome, and preventing companies from adequately portraying the economics of their risk management activities, thus resulting in less prudent risk management decisions (Gebhardt, 2012).

5.2 *Risk Disclosures Associated with Financial Instruments*

FI are deemed to be an important component of a company's financial statements (Bischof, 2009). Specifically, FI account for, on average, up to 90% of total assets and liabilities in the financial statements; hence, FI information is expected to be a material constituent of a firm's disclosure level and to influence the capital markets' valuation of a company (Bischof, 2009). The current review largely focuses on studies investigating FI-related information based on the accounting standards issued by the FASB and the IASB. However, a number of investigations on the impact of accounting standards concerning FI disclosure have also been conducted in other countries such as Australia, the UK, Malaysia and the Czech Republic. Nevertheless, the decision was taken to concentrate on the accounting standards of the FASB and the IASB as most studies have investigated their impacts (for the FASB, see Goldberg, Tritschler and Godwin, 1994; Edwards and Eller, 1995; Mahoney and Kawamura, 1995; Palmer and Schwarz, 1995; Hamlen and Largay, 2005; Zhang, 2009; for the IASB, see Lopes and Rodrigues, 2006, 2008; Bischof, 2009; Bamber and McMeeking, 2010; Gebhardt, 2012).

Table 3 summarizes key features of these studies. An inspection of the table shows that most of these studies have: (i) focused on the information provided about derivative products and overlooked other types of FI; (ii) analyzed disclosures in the annual reports of companies; (iii) used either the disclosure index technique or the content analysis method; and (iv) investigated the change or the usefulness of information provided following the introduction of new accounting standards dealing with FI. A comparison of the findings from these studies is not always easy. For instance, the investigations use different sample sizes ranging from a few companies with only ten annual reports (Edwards and Eller, 1995) to the inclusion of 600 firms (Gebhardt, 2012). In addition, some of the studies are sector-specific - concentrating on banking (Edwards and Eller, 1995), industrial companies (Hamlen and Largay, 2005) or firms from the manufacturing industry

(Hamlen and Largay, 2005). Others are more general and include both financial and non-financial firms (Lopes and Rodrigues, 2006, 2008). Furthermore, these studies examine the impact of a variety of accounting standards on FI. Nevertheless, despite these differences a number of findings emerge from an analysis of these investigations.

Panel A of Table 3 details US studies that have investigated FI disclosure matters. In general, these studies have concluded that the introduction of new accounting standards dealing with FI disclosure has enhanced the transparency, the visibility, completeness and diversity (quantitative and qualitative) of FI-related information within the financial statements (Goldberg, Tritschler and Godwin, 1994; Palmer and Schwarz, 1995; Goldberg, Godwin, Tritschler and Myung-Sun, 1998; Edwards and Eller, 1995; Herz, Bushee and Elmy, 1995; Mahoney and Kawamura, 1995; Kawamura, 1996; Hodder, Koonce and McAnally, 2001; Hernández, 2003; Bhamornsiri and Schroeder, 2004; Hamlen and Largay, 2005; Ahmed, Kilic, and Lobo, 2006; Zhang, 2009). However, some studies have documented a negative impact on the clarity of the information disclosed (Palmer and Schwarz, 1995), the variability of the form, content and the terminology employed (Goldberg, Godwin, Tritschler and Myung-Sun, 1998), and the comparability of information supplied (Hernández, 2003). For example, Hernández (2003) argued that the application of SFAS 133 has led to comparability problems as FI derivatives can be accounted for in many different ways in terms of financial instrument designation and measurement. In addition, this SFAS promoted the use of FI for earnings management over hedging purposes (Barton, 2001; Ahmed, Kilic and Lobo, 2006).

Insert Table 3 here

Panel B of Table 3 summarizes key features of studies that have investigated the impact of FI-related standards issued by the IASB (Lopes and Rodrigues, 2006, 2008; Bischof, 2009; Bamber

and McMeeking, 2010; Gebhardt, 2012). Examining FI-related information under IAS 39 reported by a sample of European-listed companies, Lopes and Rodrigues (2008) found that the sampled firms, which had sophisticated information systems and advanced accounting practices, were not fully compliant with the standards in terms of accounting for FI. They noted that: (i) about 50% of sampled companies used fair value for held-for-trading financial assets, but less than half of the firms adopted this criterion for available-for-sale financial assets as required by IAS 39; and (ii) a large proportion of companies disclosed fair value determination methods but the information was far from clear and objective, preventing the fair value information from being relevant and useful.

Following the introduction of IFRS 7, early studies were largely descriptive, with Bischof (2009) noting found that FI disclosure levels (both qualitative and quantitative) among European banks increased significantly following IFRS 7's introduction. Similarly, using a sample from FTSE 100 non-financial companies, Bamber and McMeeking (2010) documented a similar increase. More recently, using a sample of non-financial firms from 17 European countries, Gebhardt (2012) investigated FI disclosure practices based on the requirements of IFRS 7 and IAS 39, using content analysis. In particular, the study found that (i) companies classified their FI in the financial statements according to the classes identified by the standards; and (ii) most fair value measurements were assessed by reference to quoted prices for similar FI products (level 1) and directly observable market inputs (level 2), while only 10.3% of fair values were not based on observable market data. Using an emerging country sample, Tahat, Dunne, Fifield and Power (2016a) investigated the impact of IFRS 7 on the significance of FI disclosure and found that the new requirements for FI disclosure enhance the usefulness of FI-related information. Nevertheless, they pointed out that compliance with IFRS 7 requirements was somewhat low.

In general, the broad literature concludes that the FI-related accounting standards issued by the IASB have affected the reporting behavior of companies by increasing their level of disclosure about FI activities; this change may have increased the usefulness of financial statements. However, some studies have argued that the regulatory pronouncements are flawed. For instance, Harrington (2012) indicated that the complexity of IAS 39's requirements (in terms of recognition and measurement) represented a key barrier to proper FI disclosure practices¹². For example, although understandability is one of the building blocks of the decision usefulness approach, Gebhardt (2012) argued that investors and analysts find FI disclosures difficult to comprehend.

5.3 Studies on the Value Relevance of Financial Instruments

Continuing developments and changes in FI-related accounting standards resulted in more information being provided about FI derivatives, fair value recognition and measurement. These changes are incentivized by the much-heralded primary objective of financial reporting that the provision of information about an economic entity is useful to existing and potential investors, lenders and other creditors in making investment and credit decisions (Ishikawa, 2005). A common research methodology to assess usefulness is to analyze the association between share prices and accounting numbers, the so called value relevance approach; the result of such an association provides evidence of the usefulness of changes in accounting standards since their introductions are linked to variations in market values (Barth, Beaver and Landsman, 1996).

The vast majority of FI-related value relevance studies have been conducted in the US using a sample from the finance industry (e.g., Barth, 1994; Barth, Beaver and Landsman, 1996; Eccher, Ramesh and Thiagarajan, 1996; Venkatachalam, 1996; Park and Ro, 1999; Song, Thomas and Yi, 2010). For instance, Wang, Alam and Makar (2005) investigated the usefulness of disaggregated

disclosures supplied by a sample of 161 commercial banks under FAS 119 and FAS 133. The results revealed that the expanded disclosure provided under FAS 133 was value relevant; derivative information under FAS 133 (e.g. interest rate risk, foreign exchange risk) was useful in explaining variations in a bank's equity values. In terms of the research focus, some studies emphasize the value relevance of FI disclosure (e.g. Barth, 1994; Barth, Beaver and Landsman, 1996), while other studies stress FI recognition and measurement (Ahmed, Kilic and Lobo, 2006; Song, Thomas and Yi, 2010). In addition, fair value measurement appears to be value relevant. It is certainly the case that fair value details concerning FI usage have been viewed as controversial; hence, a large proportion of the accounting literature has concentrated on examining their relevance for equity pricing (Horton and Macve, 2000). Using a sample of US banks, Ahmed, Kilic and Lobo (2006) found that the valuation coefficients on recognized FI derivatives were significant, whereas the valuation coefficients on disclosed FI derivatives were not significant, suggesting that recognition and measurement are not substitutes. However, Laux (2012) argued that fair values are not a panacea for more transparency or better reporting; fair values are based on models and management judgment, which can be distorted.

Studies on the value relevance of FI under IFRS GAAP are very scarce. The only exception to this generalization relates to Bonetti (2011) and Tahat, Dunne, Fifield and Power (2016b). Bonetti (2011) investigated the usefulness of the sensitivity analysis disclosure on currency risk mandated by IFRS 7 for Italian investors. The findings revealed that post the adoption of IFRS 7, investors did proper assessment of firms' exposures to currency risk while this was not the case beforehand. In addition, she indicated that the market reaction of a firm's share prices to exchange rate changes appeared to be linked with the quantitative information provided under IFRS 7. Using a sample of 82 Jordanian companies, Tahat, Dunne, Fifield and Power (2016b) confirmed Bonetti's results for

IFRS 7. Specifically, they examined whether different categories of FI disclosure were value relevant from the additional information supplied under IFRS 7. The main conclusion that emerged from this analysis was that risk information associated with the usage of FI had a strong relationship with companies' market values. Furthermore, they discovered that the inclusion of risk information about FI under IFRS 7 increased the proportion of share price differences explained. Thus, it can be concluded that the new requirements (both qualitative and quantitative) about the risks arising from FI (including credit risk, market risk and liquidity risk) provided under IFRS 7 may have enhanced FI transparency and were useful for investors' decision-making.

6. Discussion, Conclusion and an Agenda for Future Research

The primary objective of this paper is to provide a critical synthesis of the extant literature on risk disclosure. The paper noted that the usage of FI has increased exponentially over the last two decades and that, consequently, the demand for accounting standards on FI has intensified. This increased demand has arisen, in part, from a rise in the usage of FI which was not initially matched by an increase in information about these products in companies' financial statements. The literature has long-established that such omissions have contributed to a number of financial scandals throughout the world involving the misuse of FI derivatives (Dunne and Helliard, 2002). The accounting standards that regulators have subsequently issued may be seen as a response to pressure from users concerned with losses associated with the seemingly relentless use of these products. Alternatively, the issuance of recent missives may simply be the latest instalment of the decision-usefulness agenda of the IASB. However, it is also possible that the issuance of these standards is a manifestation of a legitimization strategy whereby standard-setters wish to be seen to have played their part in terms of promulgating regulation should things go wrong.

This paper highlighted that the development and use of FI has placed an enormous pressure on accounting standard-setters to produce regulatory guidance on their measurement and disclosure. Both the FASB and the IASB have issued a number of standards in response to the development of FI. A key finding from the broad extant literature is that such standards have resulted in enhanced disclosure of FI-related information within financial statements, and that this information may be viewed as useful by investors because it enhances their economic decision-making. This increased disclosure may be used to legitimize a firm's accounting policies as, according to legitimacy theory, keeping investors' informed of a firm's on-going situation maintains its legitimacy. Hence, firms in general, and high-risk companies in particular, may be attempting to manage their legitimacy by releasing more useful information. However, it has been argued that attempts by the IASB and the FASB to accommodate FI under their current decision-usefulness framework are flawed. In fact, several studies have argued that the introduction of some accounting standards has had a negative impact on the content, clarity, comparability, terminology and the understandability of FI information. In addition, the trade-off in focus between recognition, measurement and disclosure of FI, alongside the flexibility in application, has encouraged companies to use FI for earnings management rather than hedging purposes.

The review of FI standards issued by the two main standard-setters has highlighted the diverging approaches adopted. In particular, the FASB is rooted to a rules-based paradigm whilst the IASB favors a principles-based approach. In the particular context of FI, we would argue that the FASB strategy seems deeply-flawed as financial firms are coming up with increasingly complex instruments that often render existing products and, therefore, extant standards redundant. This is not to imply that the IASB is free from criticism in this regard as recent amendments and interpretations point to principles-based standards that are looking increasingly rules-driven. In

addition, the often rapid, disjointed and prescribed changes to standards may be seen to undermine their legitimacy. Perhaps it is time for the IASB to be cognizant of this and stick to their original *modus operandi* and issue principles-based standards?

Efforts to enhance risk-related information appear to have been at the forefront of standard-setters' minds over the past twenty years with the issuance of a number of new accounting standards on the topic. However, the dominance of matters relating to risk in the agenda of standard-setters has not been matched by discussion in the eminent accounting journals. Issues associated with journal rankings, and the potential role played by journal editors as gatekeepers to the profession, are not new to accounting discourse (Lee, 1997; Parker, Guthrie and Gray, 1998; Lee and Williams, 1999), but the present paper makes clear that the gatekeepers have a potentially important role to play in terms of limiting discourse on risk disclosure. The vast majority of publications on this topic are published outside the top-ranking journals; whilst this might reflect the relative immaturity of the topic compared to other aspects of accounting academe, other novel topics such as fair value accounting have been discussed in AOS four times between 2009 and 2015. Perhaps the technical nature of the material involved (Helliard et al., 2004) does not appeal to journal editors who eschew such content in favor of less contentious topics.

On a related note, the relatively narrow geographical spread of the risk disclosure studies appearing in top-ranking journals is also worth considering. Lukka and Kasanen (1996) pointed to the competing pressures on authors to consider issues in an international setting whilst also trying to address (often practical) domestic concerns. This type of choice is also likely to be a live issue for journal editors who, in turn, will be under pressure from publishers to disseminate research to as wide an audience as possible. This context might have the perverse consequence of influencing

journal editors to prioritize studies from developed markets where a willing and substantial audience is likely.

One finding of particular note in the present study is that the majority of papers appearing in top-ranking journals largely shun theory. Most are based around positivist methodologies, emphasizing regression analysis and other econometric processes. However, IFRS 7 is clear in terms of articulating its aim of ensuring that users are provided with a holistic understanding of the role that financial instruments play in corporate activities. The focus on stewardship is of particular note and the absence of triangulating qualitative research that seeks out stakeholder perceptions arguably reflects this lack of theoretical foundation and certainly constitutes an area where further high-quality research is needed.

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Table 1: Similarities and Differences Between US GAAP and IFRS in Terms of FI

FI-related Issues	FASB	IFRS
Panel A: Similarities		
Conceptual Framework	Decision-Usefulness Approach	Decision-Usefulness Approach
Classification of FI	FI must be classified under specific categories in the balance sheet	FI must be classified under specific categories in the balance sheet
Fair value option	Permitted	Permitted
Hedge accounting	Permitted	Permitted
Panel B: Differences		
Classification	<p>Certain FI (debt versus equity) with characteristics of both debt and equity must be classified as liabilities</p> <p>Compound FI (e.g. convertible bonds) are not split into debt and equity components</p>	<p>Certain FI (debt versus equity) with characteristics of both debt and equity focuses on the contractual obligation</p> <p>Compound FI are required to be split into a debt and equity component</p>
Recognition and measurement for Impairment	<p>Available for sale debt instrument: Declining in fair value below cost may result in an impairment loss being recognized in the income statement</p> <p>Available for sale equity instrument: an impairment loss is recognized in the income statement if the equity instrument's fair value is not expected to recover sufficiently in the near-term to allow a full recovery of the entity's cost basis</p> <p>Held-to-maturity debt FI: the impairment loss of an instrument is measured as the difference between its fair value and amortized cost basis. The amount of the total impairment related to the credit loss is recognized in the income statement and the amount related to all other factors is recognized in other comprehensive income</p>	<p>Available for sale debt instrument: only evidence of credit default results in an impairment loss being recognized in the income statement</p> <p>Available for sale equity instrument: an impairment loss is recognized in the income statement when there is objective evidence that the equity instrument is impaired and the cost of the investment in the equity instrument may not be recovered</p> <p>Held-to-maturity debt FI: The impairment loss of an instrument is measured as the difference between the carrying amount of the instrument and the present value of estimated future cash flows discounted at the instrument's original effective interest rate. The amount of impairment loss is recognized in the income statement</p>
Hedge effectiveness	<p>Shortcut method for interest rate swaps is permitted.</p> <p>Inclusion of option's time value is permitted</p>	<p>Shortcut method for interest rate swaps is not permitted</p> <p>Inclusion of option's time value is not permitted</p>
Derecognition	Financial assets: derecognition occurs when effective control has been surrendered over the financial asset	Financial assets: derecognition is based on a mixed model that considers both transfer of risks, rewards and control
Measurements of loans and receivables	Effective interest method: requires retrospective method or prospective method of calculating the interest for amortized cost-based assets, depending on the type of instrument	Effective interest method: requires the original effective interest rate to be used throughout the life of the instrument for all financial assets and liabilities

	Loans and receivables: Unless the fair value option is selected, they are classified as either held for investment (amortized cost) or held for sale (fair value)	Loans and receivables are carried at amortized cost unless classified into the fair value through profit or loss or the available for sale both of which are carried at fair value
Fair value	<p>Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is an exit price, which may differ from the transaction (entry) price</p> <p>Day one gains and losses: Entities are not precluded from recognizing them on financial instruments reported at fair value even when all inputs to the measurement model are not observable</p> <p>Bid-ask spread: The price is the most representative of fair value in the circumstances is used to measure fair value</p>	<p>Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. At inception, transaction (entry) price generally is considered fair value</p> <p>Day one gains and losses are recognized only when all inputs to the measurement model are observable</p> <p>Bid-ask spread: the fair value of assets held is generally determined using the current bid price, while liabilities held are measured using the current ask price</p>

Note: This table provides the areas of similarities and differences between the FASB and IFRS with regard to standards concerning FI.

Table 2: Summary of Risk-Related Studies Published in Elite Journals

Author(s)	Journal	Country	Theoretical Framework	Methodology	Method	Sample/Industry	Key Findings
Ma and Lambert (1998)	ABR	N/A	N/A	Normative	Critique of IAS 32	N/A	The paper argues that IAS 32's requirements on accounting for, and the classification of, compound financial instruments by issuer, are based on reasoning that is conceptually flawed. The authors propose that a compound financial instrument should be viewed as a single instrument, with a dual nature, comprising the nature of both the liability and equity. Under this concept, the instrument cannot be decomposed into several component parts; rather, it should be treated wholly as a liability or equity, depending on which nature is dominant.
Solomon, Solomon, Norton and Joseph (2000)	BAR	UK	Their own risk framework model	Positivist with hypotheses testing	questionnaire	97 responses	They use a questionnaire survey to canvas the attitudes of UK institutional investors towards risk disclosure in relation to their portfolio investment decisions. Their empirical findings indicate that institutional investors do not generally favor a regulated environment for corporate risk disclosure or a general statement of business risk.
Cabedo and Tirado (2004)	AF	N/A	N/A	Normative	theoretical	One Spanish company as an example	Value at risk (VaR) is a suitable method for quantifying most of a company's risks. VaR can be used to measure business, credit and market risks.
Marshall and Weetman (2007)	JBFA	US and UK	Agency Theory and signalling	Positivist with hypothesis testing	Regression equation	44 US and 78 UK non-financial firms	They find incomplete disclosure of FX risk in both US and UK samples but for different reasons. In the US case, the information gap is lower where the information is more relevant or where firms with higher financial risk are signalling the extent of risk, but the gap is greater where firms are in competitive

							product markets. For the UK sample, the information gap is significantly lower where firms have higher financial risk or higher liquidity but the gap is greater where the shares are more closely held.
Dobler (2008)	IJA	N/A	Agency framework	Normative	Literature review	N/A	He argues that uncertainty of information endowment and issues of credible communication can explain restricted risk reporting observed empirically. He argues that regulation may mitigate the incentives-driven restrictions to some extent, but can have adverse effects on risk reporting. Overall results suggest that we should not overestimate the informativeness of risk reporting even in a regulated environment.
Ahmed, Kilic and Lobo (2011)	TAR	US	N/A	Positivist with hypotheses testing	Regression analysis	141 US banks: 270 bond issues for the pre-SFAS 133 period and 265 bond issues for the post-SFAS 133 period	The results indicate that, contrary to critics' claims, SFAS 133 has increased the risk relevance of accounting measures of derivatives exposures to bond investors and benefited banks in terms of reducing their cost of capital.
Nan (2011)	CAR	US	Agency Theory	Normative	Theoretical modelling	N/A	Demonstrates via a specific agency model that the early recognition of the unqualified use of derivatives may change the risk allocation in the manager's compensation and motivate speculation.
Miihkinen (2012)	IJA	Finland	N/A	Positivist	Factor analysis and regression	99 Finish firms giving 198 observations	They find increases in the quantity of risk disclosure following a new standard with more extensive and more comprehensive information. But they do not find a corresponding increase in quantitative disclosures and therefore there is some question regarding the influence of the standard on the substance of the risk information provided.
Kilic and Lobo (2013)	TAR	US	N/A	Positivist with hypotheses testing	Regression analysis	105 US derivative-user banks, 1998-2003: 40 banks affected by SFAS 133 and 65	Banks that are affected by SFAS 133 relied more on loan loss provisions to smooth income. The results also indicate that the increased reliance on loan loss provisions for smoothing income has impaired the

						banks unaffected by SFAS 133	informativeness of loan loss provisions for future defaults and bank stock returns.
Lim, Lim and Lobo (2013)	JAPP	21 countries*	N/A	Positivist with hypothesis testing	Regression equation	79 Banks	They look at the implications for analyst earnings forecasts of the IASB's decision in 2008 to amend IAS 39 to allow banks to retroactively reclassify financial assets that previously were measured at fair value to amortized cost. This change potentially allowed a bank to avoid recognizing unrealized fair value losses and thereby increase its income and regulatory capital during a market downturn. They find that the reclassification choice during the financial crisis reduced analyst forecast accuracy and increased forecast dispersion. However, this observed decline in analyst forecasting ability is limited to the year of adoption when the economic environment was highly volatile.
Makar, Wang and Alam (2013)	RAS	US	Mixed Attribute Problem (MAP) and accounting information mispricing theory	Positivist with hypotheses testing	Regression analysis	144 US non-financial firms that use cash flow hedges	Cash flow hedge losses and gains reported in other comprehensive income are inversely related to further cash flows. The results support FASB's concern that the SFAS 133 mixed attribute model does not provide the information necessary for investors to understand the next economic effects of derivatives use.
O'Hanlon (2013)	ABR	UK	N/A	Positivist with hypotheses testing	Regression analysis	37 UK banks, 2001 – 2008 (the period before and after IAS 39)	The paper examines whether loan-loss provisioning by UK banks was less timely under IAS 39 than under the less strict requirements of the previous UK incurred-loss regime. The results indicate that the stricter requirements of IAS 39 has not resulted in less timely loan-loss provisioning.
Abraham and Shrivs (2014)	BAR	UK	Institutional theory and proprietary cost theory	Normative approach	Longitudinal study and content analysis	Four companies	Results suggest that company managers prefer providing disclosures that are symbolic rather than substantive. They argue that institutional factors and proprietary costs contribute towards and can explain this behavior. They also highlight the role that stakeholders including managers, users, regulators

							and auditors can play in improving the quality of risk reporting.
Gillan and Panasian (2014)	IJA	Canada	N/A	Positivist with hypothesis testing	Univariate and multivariate (regression) analysis	210 observations	They find that director and officer insurance premiums for Canadian firms cross-listed in the US are more than twice those of Canadian-only listed firms, and audit fees are approximately 50% higher. While this supports the view that both service-providers view the US as a more litigious environment, our findings also suggest that these differentials for cross-listed firms reflect premia for both litigation risk and the complexity of firms' financial disclosures.
Brasel, Doxey, Grenier and Reffett (2016)	TAR	US	N/A	Positivist with hypotheses testing	Between-participants experimental design and Path Analysis	528 participants from Amazon's Mechanical Turk online marketplace	Disclosures on critical audit matters (CAM) reduce auditor liability judgements as jurors perceive that undetected fraudulent misstatements were more foreseeable to the plaintiff, although this finding held for only undetected misstatements that were difficult to foresee. The authors' also found that CAM disclosures that are unrelated to subsequent misstatements neither increase nor reduce auditor liability judgements when CAMs are not disclosed, but reduce liability judgements when no CAMs were reported. Thus, disclosure of any CAM (whether related or unrelated) provides litigation protection in the event of undetected fraud. Consequently, the CAM requirement could incentivize auditors to disclose boilerplate CAMs, thereby diluting the impact of more warranted CAM disclosures.
Fukukawa and Kim (2017)	ABR	Japan	N/A	Positivist with hypotheses testing	Regression analysis	6,887 observations; Japanese non-financial firms; 2003-2010	The study examines audit partner involvement in client company business risk disclosure. Key findings indicate that (i) if the engagements partners' tenure is shorter, a company discloses greater and more detailed business risk information; (ii) firms with audit partners who have a larger number of client engagements disclose greater and

							more detailed business risk information; and (iii) the engagement partner effects are mitigated if they belong to a Big 4 firm.
Heinle and Smith (2017)	RAS	N/A	Develop a theory of risk disclosure	Normative	Theoretical	N/A	The authors' demonstrate that risk disclosure decreases the firm's cost of capital and that the market response to risk disclosure is small when the expected level of risk is high. In addition, the model shows that firms disclose more risk information when their cash flow risk is greater than expected.
Yang, Yang, Liu and Wu (2017)	EAR	US	N/A	Positivist	Regression analysis	11,607 firm-year observations from 2003-2012	This study uses an innovative text mining approach to assess firms' risks via unstructured textual disclosure from annual reports: financial, strategic, operational, and hazard risks are identified based on an enterprise risk management framework. They examine the association between these four risk measures and audit fees. The results show that audit fees are significantly and positively related to firm-specific financial, strategic, and operational risks, indicating the informativeness of corporate textual risk disclosures.
Heinle, Smith and Verrecchia (2018)	TAR	N/A	Develop a risk factor disclosure model.	Positivist			The author's find that: (i) factor-exposure uncertainty introduces skewness and excess kurtosis in the cash-flow distribution; (ii) risk--factor disclosure affects all moments of that distribution; and (iii) the pricing of higher moments affects the price response of disclosure and the incentives to disclose. For example, factor-exposure uncertainty may increase price when the uncertainty implies positive skewness in the cash flow distribution. Hence, a reduction in uncertainty through disclosure may increase cost of capital.

Note: * Countries comprised: Australia, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Netherlands, Norway, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey and the UK.

ABR denotes *Accounting and Business Research*, AF signifies *Accounting Forum*, BAR indicates the *British Accounting Review*, CAR denotes *Contemporary Accounting Research*, EAR represents the *European Accounting Review*, IJA signifies the *International Journal of Accounting*, JAPP denotes the *Journal of Accounting & Public Policy*, JBFA denotes the *Journal of Business Finance & Accounting*, RAS denotes the *Review of Accounting Studies*, and TAR indicates *The Accounting Review*.
N/A indicates Not Applicable.

Table 3: Key Features of Extant Empirical Studies on FI Disclosure

Author(s)	Method	Sample Size	Standard	Industry
Panel A: Studies on FI Disclosure Standards Issued by the FASB				
Goldberg, Godwin, Tritschler and Myung-Sun (1994)	Content analysis	438	SFAS 105	FNF
Goldberg, Tritschler and Godwin (1998)	Content analysis	104	SFAS 105/107	FNF
Palmer and Schwarz (1995)	Content analysis	35	SFAS 105	Banking
Mahoney and Kawamura (1995)	Content analysis	65	SFAS 119	FNF
Edwards and Eller (1995)	Content analysis	10	SFAS 119	Banking
Kawamura (1996)	Content analysis	75	SFAS 119	FNF
Herz, Bushey and Elmy (1995)	Questionnaire/10-K filling	67/78	SFAS 119	NF
Hodder, Koonce and McAnally (2001)	Content analysis	230	SFAS 115	Banking
Bhamornsiri and Schroeder (2004)	Content analysis	30	SFAS 133	FNF
Hamlen and Largay (2005)	Content analysis	30	SFAS 133	Industrial
Zhang (2009)	Content analysis	225	SFAS 133	NF
Panel B: Studies on FI Disclosure Standards Issued by the IASB				
Lopes and Rodrigues (2006)	Disclosure index	55	IAS 32/39	FNF
Lopes and Rodrigues (2008)	Disclosure index	50	IAS 32/39	FNF
Bischof (2009)	Content analysis	171	IFRS 7	Banking
Bamber and McMeeking (2010)	Content analysis	100	IFRS 7	NF
Gebhardt (2012)	Content analysis	600	IFRS 7 and IAS 39	NF
Birt, Rankin and Song (2013)	Disclosure index	341	IFRS 7	Extractive

Note: This table presents key features about empirical studies on FI disclosure based upon standards issued by the FASB and the IASB. FNF: Financial and non-financial firms.

Figure 1: Timeline of FI-Related Statements Issued by the FASB

Issued	Effective	Statement
1990	1991	SFAS 105: Disclosure of information about FI with off-balance sheet risk and FI.
1991	1993	SFAS 107: Disclosure about Fair Value of FI.
1993	1994	SFAS 115: Accounting for certain investments in debt and equity securities.
1994	1995	SFAS 119: Disclosure about derivative FI and Fair Value of FI.
1998	2001	SFAS 133: Accounting for Derivative Instruments and Hedging Activities.
2000	2001	SFAS 140: Accounting for Transfers and Servicing of FI.
2003	2004	SFAS 150: Accounting for Certain FI.
2006	2007	SFAS 157: Fair value measurements.
2007	2008	SFAS 159: The fair value option for financial assets and liabilities.
2008	2009	SFAS 161: Disclosures about derivatives instruments and hedging activities.
2009	2010	SFAS 166: Accounting for transfers of financial assets.

Notes: This figure outlines FI-related statements issued by the FASB. Statements are outlined on a chronological basis. US firms should apply these statements.

Figure 2: Timeline of FI-Related Standards Issued by the IASB

Issued	Effective	Standard
1990	1991	IAS 30: Disclosures in the Financial Statements of Banks.
1995	1996	IAS 32: FI: Presentation.
1998	2001	IAS 39: FI: Recognition and Measurement.
2006	2007	IFRS 7: FI: Disclosure.
2009	2015	IFRS 9: FI.

Note: This figure outlines FI-related standards issued by the IASB. Standards are outlined on a chronological basis. Companies that adopt IAS/IFRS should apply these standards.

ENDNOTES

¹ FI are financial contracts whose values depend on, and are derived from, the value of an underlying asset, reference rate or index (Bullen and Porterfield, 1994). Indeed, Lee and Tan (1994) argued that FI can be both primary instruments (non-derivatives such as receivables, payables, and equity securities) and secondary instruments (derivatives such as forward contracts and options). In practice, derivative instruments generally include several types of products such as futures, forwards, swaps and option contracts (Crawford, Wilson and Bryan, 1997).

² The development of FI has triggered a great deal of controversy. For example, Jacque (2010, p.1) quoted Warren Buffett by stating that “financial instruments are weapons of mass destruction”. The importance of regulating FI disclosures has become increasingly apparent given the sizeable financial collapses and losses that have occurred because of the inappropriate use of, and failure to publish information about, FI products (Ighian, 2012; Tahat, 2013).

³ Demands for improved risk reporting as a result of the 2007 global financial crisis include: (i) the Financial Stability Forum in *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience* (2008); (ii) the UK House of Commons Treasury Committee in *Banking Crises: Reforming Corporate Governance and Pay in the City* (2009); (iii) *A Review of Corporate Governance in UK Banks and Other Financial Industry Entities* (2009); (iv) the European Commission in *Corporate Governance in Financial Institutions and Remuneration Policies* (2010); (v) the UK Financial Reporting Council in *Effective Company Stewardship: Enhancing Corporate Reporting and Audit* (2011); and (vi) the ICAEW in *Reporting Business Risks: Meeting Expectations* (2011). While some of these reports focus on financial institutions in particular, others examine risk reporting by businesses in general.

⁴ Accounting for trading derivatives is the same as accounting for trading marketable securities marked to market and changes in fair values are posted to earnings. Accounting for hedging derivatives would depend on hedging effectiveness.

⁵ Some of the primary advantages of a rules-based system include increased accuracy, reduced ambiguity and a diminished possibility of lawsuits. The major weakness of a rules-based system is the complexity in the preparation of financial statements (Schipper, 2003).

⁶ In principles-based accounting, the guidelines are set but not necessarily dictated for every situation, which is one of the major concerns pertaining to this type of accounting system. The major benefit of principles-based accounting is that the guidelines can be applied in a variety of situations/industries, which avoids the need for managers to manipulate statements to fit a certain need (Agoglia, Douppnik and Tsakumis, 2011).

⁷ These approaches are: (i) amending the measurement requirements (e.g. by reducing the number of categories of financial instruments); (ii) replacing the existing requirements with a fair value measurement principle and some optional exceptions to fair value measurement; and/or (iii) simplifying hedge accounting (IASB, 2008).

⁸ For example, nine articles were published in *Accounting in Europe*, eight were published in *Managerial Auditing* and six were published in the *International Journal of Accounting and Finance*.

⁹ The model proposed by Abraham and Schrires (2014) leads to three specific questions that can be used to assess the relevance of risk factor disclosures: (1) Is risk information specific to the company and are there changes to reported risks in risk factor statements over time?; (2) Are significant events identified in prior risk factor statements?; and (3) Are significant observed events discussed in subsequent risk factor statements? The authors argues that preparers should focus on tailored information that answers these three questions, while shareholders should challenge boiler-plate information in annual reports. Finally, the authors argue that regulators must be willing to support investors in questioning mediocre disclosures, and auditors

need to consider how they can resist boiler plate disclosures. In sum, the authors argue that all of these stakeholders need to consider the features of good disclosures and how best they can be encouraged.

¹⁰ For example, Procter & Gamble were among many entities that experienced massive losses associated with derivative products. They contended that were not fully aware of the riskiness associated with FIs when they incurred their losses in 1994 (Hansell, 1996).

¹¹ This literature has examined countries including Canada (Pérignon and Smith, 2010), France (Combes-Thuélín, 2006), Italy (Beretta and Bozzolan, 2004; Greco, 2012; Maffei, Aria, Fiondella, Spanò and Zagaria, 2014), Portugal (Deumes and Knechel, 2008), Kuwait (Al-Shammari, 2014), the United Arab Emirates (Hassan, 2014); Malaysia (Amran, Bin and Hassan, 2009; Ismail and Rahman, 2013;), the UK (Stanton and Stanton, 2002; Linsley and Shrives, 2005a, 2005b, 2006; Abraham and Cox, 2007; Linsley and Lawrence, 2007), the US (Hodder, Koonce and McAnally, 2001; Ahmed, Beatty and Bettinghouse, 2004; Koonce, McAnally and Mercer, 2005) and across a number of countries (Dobler, Lajili and Zéghal, 2011; Nur Probohudono, Tower and Rusmin, 2013).

¹² Specific concerns that have been expressed about IAS 39 include: (1) the criteria for determining which instrument must or can be measured in a given way are sometimes complex and difficult to apply; (ii) there are no clear requirements for some instruments; (iii) in some cases, management should choose how to account for some instruments; (iv) different gains or losses result from different measurement methods and two or more measures may be combined; and (v) it is not always easy to determine which measurement method has been applied to which instrument or to understand the implications of the differences (Harrington, 2012).